

UNIVERSITI TEKNOLOGI MARA

**A FRAMEWORK-BASED APPROACH
TOWARDS DEVELOPMENT OF ONLINE
RESEARCH PROGRESS TRACKING SYSTEM
AT FTMSK**

**KHAIRUL ASHRAF BIN BASUL HAK
2004219568**

Thesis submitted in fulfillment of the requirements for
Bachelor of Science (Hons) Information System Engineering
Faculty of Information Technology And
Quantitative Science

MAY 2006

DECLARATION

I certify that this thesis and the research to which it refers are the product of my own work and that any ideas or quotation from the work of other people, published or otherwise are fully acknowledged in accordance with the standard referring practices of the discipline

MAY, 2006



KHAIRUL ASHRAF BIN BASUL HAK

2004219568

TABLE OF CONTENT

ACKNOWLEDGEMENT

ABSTRACT

CHAPTER 1 INTRODUCTION

1.1	Introduction	1
1.2	Background of the Research	2
1.3	Research Problem	3
1.4	Scope of the Project	4
1.5	Research Objective	4
1.6	Significant of the Research	5

CHAPTER 2 REVIEW OF LITERATURE

2.1	Overview of IS Research	6
2.2	Project Tracking Defined	8
2.3	Open Source Definition	8
2.4	Overview of the Web Application	11
2.5	Web Development Technologies	
2.5.1	OpenACS	12
2.5.2	Mod_perl/Mason	13
2.5.3	J2EE	13
2.5.4	Zope	14
2.6	TCL Overview	14
2.7	AOLServer	15

CHAPTER 3 APPROACH AND METHODOLOGY

3.1	Introduction	17
3.2	Initial Study	18
3.3	Theoretical Study	18
3.4	Exploratory Study	19
3.4.1	Ethnography and Data Collection	19
3.4.2	Requirement Modeling	20
3.4.3	Platform Installation	20

3.4.4	Structure Study	20
3.4.5	Expert Research and Support	21
3.5	Prototyping	21
3.5.1	Detailed Design	21
3.5.2	Prototype Development	21
CHAPTER 4 CONSTRUCTION		
4.1	Use Case	22
4.2	System Layout	26
CHAPTER 5 ANALYSIS AND FINDINGS		
5.1	Workflow of ISE Student Research	32
5.2	REPORT Specification Formalization	
5.2.1	User Requirement	38
5.2.2	Flow and Features of REPORT	38
5.2.3	Architecture of REPORT	39
5.2.3.1	Structure of Codes in REPORT	39
5.2.3.2	OpenACS Groups in REPORT	40
5.2.3.3	Flow of Creating Groups in REPORT	42
5.2.3.4	OpenACS Template in REPORT	48
CHAPTER 6 CONCLUSION AND RECOMMENDATION		
6.1	Research Conclusion	48
6.2	Recommendation	49
REFERENCE		50
APPENDIX		
A	Software Requirement Specification	
B	Software Design Document	
C	Class Diagram	
D	Questionnaire	

ABSTRACT

This research project is about developing Online Research Progress Tracking System using Web-Application Framework in FTMSK. The objectives of the research are to identify the workflow of CS226 student research and focusing on requirement as well as the design of the prototype. Ethnography approach is chosen to as the researcher is also a participant in the research environment. For data gathering, contextual enquiry and questionnaire is selected to gather the requirement and prove the finding at the end of the research. In the end of research project period, researcher found out that the result is comply with the objectives and therefore, all the objectives in these research project have been achieved.